REMARKS

Status of the Claims

Claims 1-25 were in the application as filed.

Restriction to one of the sets of claims (a) 1-21 or (b) 22-25 was required by Examiner. In a telephone conversation with Samuel H. Dworetsky, attorney for applicants, on December 6, 2004, set (b) – claims 22-25 - was provisionally elected. This election to proceed with examination of claims 22-25 has been previously affirmed. Applicants expressly reserve the right to have claims 1-21 subject to examination in the further prosecution of a divisional or other application based on the present application. The following comments and arguments will be restricted to the examination of claims 22-25.

Claims 22 and 23 stand objected to as containing abbreviations, acronyms, or the like. While no specific terms are identified by Examiner, it is assumed that these objections apply to the term "DNS" in claim 22 and "IPsec" in claim 23. No other terms appear to even remotely be subject to possible objection as "unidentified" in these claims.

Claims 22-24 stand rejected under 35 USC § 112, as having insufficient antecedent basis for the limitation "said data packet streams."

Claim 22 stands rejected under 35 USC § 102(e) as being anticipated by Liu, U.S. Patent 6,079.020 (hereinafter, *Liu*).

Claims 23-25 stand rejected under 35 USC § 103(a) as being unpatentable over Liu as applied to claim 22 and further in view of Ludovice, *et al.*, U.S. Patent 6,636,898 (hereinafter Ludovici).

In a response to comments made by Examiner in two telephone conversations in mid-July, 2005, applicants submitted proposed amendments and arguments as further responses to the prior Office action of December 16, 2004. These amendments and arguments were sent via facsimile on July 22, 2005, but apparently were not entered. Instead, the present Office action dated August 17, 2005 was mailed.

By present amendment, claims 22 and 23 are amended to avoid the alleged informalities regarding abbreviations, acronyms, etc.

Amendments to claims 22-24 are presently made in response to the alleged lack of sufficient antecedent basis for the language "said data packet streams."

Claims 22-25, as presently amended, remain in the application.

Arguments in support of patentability of claims remaining in the application

Claims 22 and 23 have been amended to avoid any possible informalities regarding the use of "DNS" and "IPsec" in these claims.

In the rejection of claims 22-24 under 35 USC § 112, Examiner indicates that the language "said packet data streams" has insufficient antecedent basis in the claim(s), apparently believing that the antecedent language "at least one packet data stream" is "insufficient" for this purpose. That is, it appears that Examiner's concern is that there is a lack of singular-plural agreement between these two quoted phrases.

Applicant's attorney respectfully disagrees that there is any such lack of agreement. When based on the antecedent language "at least one packet data stream," it is clear that "said packet data streams" includes the case of a singular data stream as well as the case of plural data streams. Moreover, there are no other packet data streams (or stream) to which "said packet data streams" refers or could refer.

Nevertheless, to facilitate prosecution of the present application and provide consistency of usage, applicants have amended claims 22-24 to avoid any possible lack of antecendents in these claims. It is emphasized, however, that the change reflects only a minor matter of form, and does not change the meaning from that of the prior language in these claims.

In respect of the rejection of claim 22 over Liu under 35 U.S.C. § 102(e), Examiner identified FIGs. 1 and 2, the abstract and various portions of the Liu description. Applicants respectfully disagree with Examiner's application of the teachings of Liu in rejecting applicants' claim 22.

In the first reference to Liu (paraphrasing the preamble of claim 22), Examiner cites to FIGs. 1 and 2. While not expressly stated, it appears that Examiner is comparing one of Liu's VPN gateways, such as 115, 125, or 135 to applicants' NIU (102, 202 or 302, for example). But Liu's VPN gateways and their relationship to VPN Management Station 160 shown in FIG. 1 present fundamentally distinct structure and functioning.

Liu's VPN Management Station 160 is an attempt to avoid manual configuring of a plurality of VPN gateways to avoid potential errors and allow remote updating. See, for example, Liu at col. 2, line 52 through col. 3, line 21.

In particular, Liu's teachings provide that a command specifiying a network operation received at VPN management station 160 for translation into configuration information for delivery to VPN gateways affected by the command. (Liu, col 3, lines 8-14.) *VPN groups* are established in the Liu system and VPN processing is performed and packets delivered when it is determined that source and destinations are members of the same VPN group. (Liu, FIG. 2, 220,240 and 250.)

Importantly, configuration parameters delivered to gateways include specific groups of addresses between which communications are to be transmitted securely. In a variation on this embodiment, the configurationparameters include Internet Protocol (IP) addresses. Thus address information is provided to gateways to *define VPN groups* and to *individual IP addresses*. (Liu, col. 3, lines 39-43.) Further illustration of the management of network addresses and the express provision of them to particular gateways is provided by FIGs. 8-10 and the discussion thereof at col. 10, line 7 through col. 11, line 9.

From Liu's description of VPN management station 160 and its relationship to the respective VPN gateways (and their VPN groups and addresses), it is clear that Liu's VPN management station 160 provides an overall control function for the VPN gateways. This control is directed in large part by the delivery by VPN management station 160 of address definitions of VPN groups and the individual IP addresses of source and destinations for VPN paths.

In contradistinction, the invention defined in applicants' presently amended claim 22, recites NIU functions including "providing network destination address information from a Domain Name System server for at least selected ones of said data streams." This is inconsistent with Liu's use of explicit IP addresses and VPN groups defined by addresses delivered as configuration parameters by Liu's centralized VPN management station 160.

Thus, Examiner's cite to Liu's step 250 in FIG. 2 is inapposite. Liu does not perform the step of applicants claim 22: "providing network destination address

information from a Domain Name System server for at least selected ones of said data streams." Instead, Liu relies on the explicit download of addresses from his VPN management station 160 to individual VPN gateways.

It should be understood that the DNS function recited in claim 22 is not consistent with the operation of Liu's system. That is because explicit address information is downloaded in the form of IP addresses and ranges no DNS function need be performed in Liu. Applicants' "providing network destination address information from a DNS server," on the other hand permits resolution of address information in applicants' NIU. In particular, applicants' DNS function is described, for example, in the specification at page 15, line 30 through page 16, line 1, where it is noted that applicants' "DNS server 415 provides network address resolution for destinations *specified in other formats*, and substitutes for access to network-based DNS servers commonly used for non-secure networking applications." [Emphasis added.]

The providing of destination address information in the manner recited in applicants' claim 22 confers advantages to applicants' embodiments in the form of increased flexibility and mobility. That is, reliance on Liu's rigid address format, updating from a central VPN management station 160 and rigid adherence to *VPN groups* need not be observed in applicants' claimed invention. This is especially important in applications of the present inventive methods where a user is required to move from one location to another as discussed, for example, in the specification at page 23, line 28 through page 24, line 5 where it is noted that

> Thus, for example, a traveling business person will efficiently and simply access a corporate headquarters LAN over the Internet by connecting through a network interface unit supporting a variety of client devices including one a laptop computer, web-enabled cell phone, personal digital assistant and a variety of peripheral devices. Such connections will be made from corporate branch offices, customer offices, supplier offices, hotel rooms and, via wireless links, from virtually anywhere. Such connections will be available over dial-up, cable, DSL, private line, wireless and other types of links, <u>the configuration information for which will be automatically derived using present inventive teachings</u>. (Emphasis added.)

Thus, no basis has been cited by Examiner by which the DNS address resolution feature of the invention defined by applicants' claim 22 is anticipated by Liu. Nor has any teaching of Liu been cited that achieves the above-cited advantages of the present invention of claim 22.

For these reasons, it is submitted that claim 22 as presently amended is patentable over Liu. Reconsideration and allowance of independent claim 22 is therefore respectfully solicited.

Claims 23-25 stand rejected as unpatentable over Liu in further view of Ludovici under 35 U.S.C. § 103(a). It is said by Examiner that with respect to claim 23, Liu is silent with respect to modifying packets in an IPsec server, but that Ludovici shows such an operation – citing to FIG. 22 and the abstract of Ludovici.

In important ways Ludovici, like Liu, describes a centrally managed VPN network. In particular, VPN manager 162 (also known as VPNCNM) is described as managing all IPsec tunnels (Abstract). In FIG. 22 (characterized as a systems view of a VPN solution), the interaction of components including VPNCNM (there styled 450) that centralizes control of all VPN connections is shown. IPsec 452 appears to be included among the functions controlled.

However, it is clear that Lodovici does not include IPsec (or DNS server) functionality in the manner of the NIU of applicants' claim 23. Just as control for address resolution functionality is centralized in Liu outside of any NIU-like element connected to a LAN, so too is IPsec functionality controlled in Lodovici's centralized VPN controller outside of any NIU-like element as in applicants' claim 23. While IPsec itself is not new, the manner of use in applicants NIU in combination with the other steps of claim 23 is new and non-obvious. Nothing in Liu and Lodovici, taken individually or in any combination, performs IPsec functionality in the manner of claim 23. Nor is the claimed IPsec method functionality in applicants' NIU even suggested in the Liu and Lodovici references or any combination of them. If Liu was modified to incorporate the teachings of Lodovici (and there is no basis presented in the descriptions of these references, nor identified by Examiner, to suggest this) applicants' invention still remains conceptually different and non-obvious (NIU-based versus centrally controlled). The IPsec step of claim 23, like the method of claim 22 from which it depends is performed in

a NIU; neither Liu or Lodovici (or any combination of the two) teaches or suggests such method steps.

In addition, claim 23, as presently amended, depends from claim 22 as presently amended and includes all of its limitations. For these reasons it is respectfully submitted that claim 23 as presently amended is patentable over Liu taken with Lodovici.

It appears that claims 24 and 25 are rejected as obvious only over features said to be found in Liu; no bases are presented by Examiner as to how Lodovici would contribute to any anticipation or obviousness of claims 24 and 25 – other than those applying to claim 23 from which claims 24 and 25 depend. This condition exists despite the nominal reference to Lodovici as applying to claims 23-25 in paragraph 8 of the present Office action. In any event, claims 24 and 25 include all of the limitations of claim 22 and 23, as presently amended, and so are patentable over Liu (and Lodovici and any combination of Liu and Lodovici) for the reasons stated in connection with the arguments in support of claims 22 and 23 above.

Conclusion

For the foregoing reasons, it is respectfully submitted that claims 22-25 remaining in the application, as presently amended, overcome or avoid all bases for rejection or objection and are allowable. It is requested that all claims be further examined, found allowable and passed to issue.

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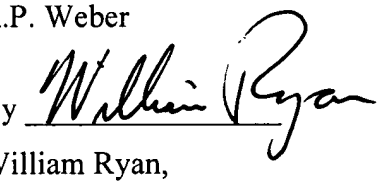
By 

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